Amendments to the Specification:

Please replace the paragraph on page 10, line1-17, with the following amended paragraph:

Referring to FIGS. 3A and 3B, a second preferred embodiment according to the current invention is generally similar to the above described first preferred embodiment. However, the second preferred embodiment is modularized into a reader module as shown in FIG. 3A and an image processing/reproduction module as shown in FIG. 3B. These modules are interfaced by interfaced units **14** and **15**. Furthermore, the second preferred embodiment additionally includes a variable length encoder units **12** and a variable length decoder **16**. After the color image information is similarly processed in the reader module by the units **15** as described with reference to FIG. 2, the fixed compression unit **10'** compresses the size of the CMYK color data by approximation. The variable length encoder unit **12** further compresses the 2-bit data size based upon a predetermined variable length compress technique such as bit plane JBIG coding. The reduced-size data is then sent from the reader module to the image processing/reproduction module via a first interface unit **14** to a second interface unit **15**. In the image processing module, a second variable length decoder unit **16** restores the reduced data size back to fixed 2-bit data. The processing units **6-8** processes the 2-bit data as described with respect to FIG. 2 before an output unit **9** outputs an image.

Please replace the paragraph on page 12, lines 8-12, with the following amended paragraph:

Referring specifically to FIG. 5A, pixels are processed from left to right and from top to bottom. The current unprocessed pixel is designated by (x,y). An original input value of the current pixel is 30. Surrounding pixels are designated by (x−1, y−1) through (x−1,y), and they have been already processed for error diffusion. The values in these error diffused pixels respectively indicate a residual difference value. To ultimately determine the residual difference

value of the current pixel, a sum of the product between a weight (w_i) and a residual difference value (rd_i) is divided by the sum of the weight values (i), and the quotient is added to the current pixel input value (cp). In general, the above described relation is expressed by the following equation:

Please replace the paragraph on page 13, lines10-33, with the following amended paragraph:

To illustrate the approximation process, the above determined weighed error diffusion value for the current pixel is used to obtain final 2-bit information-. Referring to FIG. 6A, one preferred processes of the quaternarization process according to the current invention approximates the weighted input values by n approximated values. The range k is less than the range of the input values. According to one preferred quaternarization method, the weighted error diffused input values range from 0 to 255 while the approximated values range from 0 to 3. In other words, 8-bit information is approximated by 2-bit information, and the data size is compressed. In approximating into the four values, each weighted error diffusion value is compared against a set of predetermined threshold values to determine an approximated value. Referring to FIG. 6A, one set of exemplary predetermined threshold values includes 43, 128 and 213. Any input values fall in a range between 0 and 43 is approximated by a quaternary value 0. Similarly, the second range is defined by thresholds 43 and 128 and assigned a quaternary value 1. Lastly, the third range is between the thresholds 128 and 213 while the fourth range is between 213 and 255. The third and fourth ranges are respectively assigned a quaternary value of 3 and 4. Thus, the current pixel error diffusion value 100 is falls between the two thresholds between 43 and 128 and is approximated by 1 according to this exemplary threshold values.

Please replace the paragraph on page 15, lines 13-28, with the following amended paragraph:

After the above described approximation process is completed, referring to FIGS. 8A-D, the approximated image data is efficiently image-processed according to the current invention. The image processing tasks involve enlargement, reduction and selection of a certain portion of

the image. In the following, the image selection process is illustrated using an image represented by the quaternarized density values-. As described before, the quaternarized density values range from 0 to 3 and respectively indicated by the corresponding shade as shown in FIG. 8A. FIG. 8B shows the same image as FIG. 8A in the approximated data values.